

## **5.4 AGRICULTURE AND SOILS**

This section describes the affected environment and the environmental effects of the MPP on agriculture and soils in accordance with CEC requirements. Impacts are assessed for the construction and operations of the proposed new generating plant structures. As appropriate, mitigation measures are also included in this section.

### **5.4.1 Affected Environment**

The MPP involves the installation of an advanced technology CTG, an HRSG with supplemental duct firing, and an STG. The use of an existing site, along with use of all the existing support systems accompanying the decommissioned Units 1 and 2, allows the MPP to be constructed with minimal environmental impacts. No new offsite transmission lines or pipelines are required. The MPP facility is located in the southeastern portion of the COB (refer to Figure 5.4-1). The Burbank Western Channel, a flood control channel which drains to the Los Angeles River, is located adjacent to and immediately northeast of the MPP site. The surrounding properties consist largely of commercial/light industrial development.

The affected environments for the soils resource and agriculture are described in Sections 5.4.1.1 and 5.4.1.2, respectively. Environmental impacts are discussed in Section 5.4.2 and Applicant-committed mitigation measures are presented in Section 5.4.4. The project's consistency with applicable laws, ordinances, regulations, and standards (LORS) is discussed in Section 5.4.5.

#### **5.4.1.1 Soils Resources**

Soils are mapped and described at the level of "soil associations." The locations and properties of the soil associations were identified from maps of the area prepared by the U.S. Soil Conservation Service (SCS) and presented in the Report and General Soil Map, Los Angeles County, California (SCS, 1969). The SCS is now called the Natural Resources Conservation Service (NRCS). The entire MPP site has been previously disturbed, covered with non-native fill in places, and/or covered with power plant facilities and pavement. Refer to Section 5.3 (Geological Hazards and Resources) and the associated geotechnical report for the characteristics of the subsurface soils.

**5.4.1.1.1 Power Plant Site.** The native soils present at the MPP facility site consist of the Tujunga-Soboba association (refer to Figure 5.4-1). The Tujunga-Soboba association soils are typically at slopes of zero to five percent, with slow to very slow runoff. Tujunga soils make up about 60 percent and Soboba soils 30 percent of the association. The remaining 10 percent is composed of unnamed sandy and cobbly material in the beds of intermittent streams.

Tujunga soils have a Capability Unit Classification of VIIe-4. The major limitations of soils in this unit are droughtiness, lack of effective rainfall, and erosion hazard. They are over 60 inches deep, somewhat excessively drained, and have rapid subsoil permeability. Tujunga soils have brownish-gray or grayish-brown sand or loamy fine sand surface layers underlain by similar substratum which may be stratified. They are slightly acid to mildly alkaline throughout. Available water capacity is 4 to 5 inches for 60 inches of soil depth. The inherent fertility of the soils is low. The erosion hazard from water is slight to moderate. The wind erosion hazard is moderate to high. In other locations, these soils are used for limited grazing in the spring (SCS, 1969).

Soboba soils have a Capability Unit Classification of VIIs-4. The major limitations of soils in this unit is reduced water-holding capacity. They are over 60 inches deep, excessively drained, and have very rapid subsoil permeability. They have pale-brown, neutral, cobbly very fine sandy loam surface layers about 3 inches thick underlain by pale-brown and light brownish-gray very cobbly loamy coarse sand that becomes calcareous in the lower part. Gravel and cobbles make up 35 percent or more of the soil profile. Available water holding capacity is 2 to 3 inches for 60 inches of soil depth. The inherent fertility of the soils is very low and they are subject to moderate wind erosion. In other locations, these soils are used for residential development, incidental grazing in the spring for wildlife habitat, and recreational purposes (SCS, 1969).

As stated above, the existing COB power generating facility is already developed and the soils at the site have already been disturbed and mixed or replaced with imported fill material as part of the existing improvements. Therefore, the Tujunga-Soboba association soil-mapping unit identified and discussed above likely does not represent soil conditions in the actual construction zones.

The MPP site is relatively flat, mostly paved, and has an existing surface runoff drainage system (refer to Figure 5.4-2 for a depiction of paved/unpaved surface areas at the MPP site). Results of a current geotechnical investigation presenting detailed description of soils at the MPP site are included in Appendix G.

**5.4.1.1.2 Transmission Lines.** No offsite transmission lines are associated with the MPP.

**5.4.1.1.3 Offsite Pipelines.** No offsite pipelines are associated with the MPP.

**5.4.1.1.4 Worker Parking and Equipment Staging Sites.** Several offsite locations are proposed for worker parking and equipment staging as shown on Figure 5.4-1 and discussed more completely in Section 3.0 (Facility Description and Location). All of the proposed offsite locations are fully paved, except for the staging site, and are located within the COB. The proposed parking and staging sites lie upon soils of the Hanford Association (60% VIIe-

4, 30% VIIs-4) (SCS, 1969). If the proposed unpaved staging site is selected for use, dust, sediment, and water runoff controls will be implemented so that the erosion hazard will be minimized.

#### **5.4.1.2 Agriculture and Prime Farmland**

No Prime agricultural lands or other farmlands designated as Farmlands of Statewide Importance are within or adjacent to the proposed project site. The MPP components are located in areas that do not presently involve agricultural lands or types of soils that would support cultivation other than of a highly restricted nature.

### **5.4.2 Environmental Consequences**

#### **5.4.2.1 Construction Related Impacts**

Significance criteria have been selected based on CEQA Guidelines, as well as performance standards adopted by responsible agencies. An impact may be considered significant from an agriculture and soil standpoint if the project results in:

- Substantial soil erosion or loss of topsoil
- Degradation or loss of available agricultural land, agricultural activities, or agricultural land productivity in the project area
- Alteration of agricultural land characteristics due to plant air emissions, or
- Conversion of Prime or Unique Farmland, or Farmland of Statewide Importance, to non-agricultural use.

The Universal Soil Loss Equation is typically used to quantify water-induced erosion in agricultural areas. However, because no agricultural land will be impacted during construction, soil loss estimates are not meaningful and thus have not been calculated for the plant site or offsite pipeline corridors.

Construction impacts on soil resources can include increased soil erosion and soil compaction. Soil erosion causes the loss of topsoil and can increase the sediment load in surface receiving waters downstream of the construction site. The magnitude, extent, and duration of this construction-related impact depends on the erodibility of the soil (discussed above), the proximity of the construction activity to a receiving water, the degree of contamination of excavated soil stockpiles, and the construction methodologies, duration, and season.

#### **5.4.2.2 Power Plant Site**

Project construction activities (including site preparation) at the MPP site are estimated to be conducted during a 23-month period. Land disturbance related to development activities will be conducted on approximately 3.0 acres at the existing power plant site with an additional 0.24-acre of trenching for underground transmission lines. Site grading will be minimal, as the final grade at the site will be similar to the relatively flat existing grade. Excavation work will consist of the removal, storage, and/or disposal of sand, gravel, vegetation, organic matter, loose rock, boulders, and debris to the lines and grades necessary for construction. Materials suitable for backfill will be stored in stockpiles at designated locations using proper erosion protection methods. Excess material will be removed from the site and disposed of at an acceptable location. During the construction phase of the project, erosion and sediment control measures, such as mulching, jute netting, culverts, sediment detention basins, etc., will be temporarily installed as required by local regulations. The permanent storm water management system will preserve the existing site drainage patterns to the maximum extent feasible and promote the protection of soil and water resources, as required by the existing Storm Water Pollution Prevention Plan (SWPPP) for the existing COB facility.

Areas to be backfilled will be prepared by removing unsuitable material and rocks. The bottom of an excavation will be examined for loose or soft areas. Such areas will be excavated fully and will be backfilled with compacted fill.

Backfilling will be done in layers of uniform, specified thickness. Soil in each layer will be properly moistened to facilitate compaction to achieve the specified density. To verify compaction, representative field density and moisture-content tests will be made during compaction. Structural fill supporting foundations, roads, parking areas, etc., will be compacted to at least 95 percent of the maximum dry density as determined by ASTM D1557. Embankments, dikes, bedding for buried piping, and backfill-surrounding structures will be compacted to at least 90 percent of the maximum dry density. General backfill placed in remote and/or unsurfaced areas will be compacted to at least 85 percent of the maximum dry density.

Short-term increases in soil erosion are expected to occur during the construction phase. The erosion characteristics of the Tujunga-Soboba association mapped at the location of the MPP site are minimal except with respect to wind erosion. Because of this susceptibility to wind erosion and because previously disturbed soil and/or imported fill will be encountered at the power plant site, Best Management Practices (BMPs) will be implemented during construction. Project-related soil erosion will be minimized through implementation of the erosion control measures described in Sections 3.5 (Facility Civil/Structural Features) and 5.4.3. Therefore, impacts from soil erosion are expected to be less than significant.

Construction of the proposed power plant will result in soil compaction due to the erection of foundations and paving. Soil compaction will also result from vehicle traffic along temporary access roads and in equipment staging areas. Compaction makes the soil more dense, reducing pore space and impeding water and gas movement through this medium. This can result in increased runoff, erosion, and sedimentation. The incorporation of erosion control measures described in Sections 3.5 (Facility Civil/Structural Features) and 5.4.3 during project construction will result in less than significant impacts from soil compaction.

Site preparation and construction of the project may potentially involve excavation of contaminated soils. Contaminated excavated soils will be stored temporarily in construction zones and removed for disposal or treatment and recycling. Management of contaminated excavated materials will be conducted in accordance with applicable federal, state, and local regulations, as described in Section 5.14 (Waste Management). Therefore, the impact to potential receiving waters will be less than significant. As applicable, engineering fill will be imported to replace excavated materials that are not suitable for replacement.

Following construction, wind and water erosion on developed portions of the site will be reduced because the plant site will be leveled, compacted, covered with asphalt, concrete and/or gravel, and drainage will be controlled through a storm drain system. Implementation of the Applicant-committed mitigation measures discussed in Section 5.4.3 is expected to limit impacts to the soils resource at the generating plant site to acceptable levels. Operation of the generating plant will expose soils and vegetation to increased levels of air pollutants as discussed in Section 5.2 (Air Quality). However, impacts to vegetation associated with deposition of air pollutants are expected to be insignificant.

#### **5.4.2.3 Transmission Lines**

The proposed project will not include alteration of existing offsite transmission lines or construction of new lines and will therefore have no impact to the native soils.

#### **5.4.2.4 Offsite Pipelines**

The proposed project will not include alteration of existing offsite pipelines or construction of new lines and consequently will have no impact to the native soils.

#### **5.4.2.5 Worker Parking and Equipment Staging Site**

Most of the proposed worker parking and equipment staging sites are fully paved and therefore, will have no exposed soils. If modifications are required or if unpaved or partially paved sites are selected for use, some graveling may occur.

Erosion control measures (more fully described in Section 5.4.3.1) will be implemented during grading to help maintain water quality, protect property from erosion damage, and prevent accelerated soil erosion or dust generation. No impacts to native soils, receiving waters, or agriculture are anticipated at or near these sites.

#### **5.4.2.6 Cumulative Impacts**

Soil erosion and sedimentation impacts associated with the MPP will not be significant; thus, cumulative impacts will be negligible. In addition, the location is not expected to have an effect on the revegetation potential. The project is going to be constructed within previously disturbed areas that will be paved over. No existing agricultural land will be affected. Impacts related to the excavation of contaminated soils will not be significant because all excavated materials will be handled in accordance with the procedures described in Section 3.8 (Project Construction) and Section 5.14 (Waste Management).

#### **5.4.3 Mitigation Measures**

Since no agricultural land is present within the vicinity of the proposed project, no direct impacts to agricultural land are anticipated. By incorporating the mitigation measures referenced in Section 5.5.3 (Water Resources), impacts to soil during construction and operation will be minimal.

##### **5.4.3.1 Temporary Erosion Control Measures**

Typically, temporary erosion control measures include revegetation, slope stabilizers, dust suppression, construction of berms and ditches, and sediment barriers. Although vegetation is the most desirable form of erosion control because it stabilizes the soil and maintains the landscape, implementation of vegetation is not feasible due to the urbanized environment.

During construction of the proposed project, employment of control measures will minimize the wind-blown erosion of soil from the site. Spraying clean water on the soil in construction areas will help to suppress dust.

Sediment barriers such as straw bales or silt fences, slow runoff and trap sediment. Generally, placement of barriers will occur at the base of exposed slopes below disturbed areas. Placing barriers around the proposed project and the property boundary serves as prevention against sediment leaving the site. Because the MPP facility is relatively level, standard surface erosion control techniques should be effective. The need for runoff retention basins, drainage diversions, and other large-scale sediment traps is not expected because of the level topography and surrounding paved areas. Soil stockpiles generated during

construction will be covered and protected from rainfall if left onsite for extended periods of time.

#### **5.4.3.2 Permanent Erosion Control Measures**

The permanent erosion control measures at the MPP facility will be the same as the existing erosion control measures, and consist of a drainage system with drop inlets directing surface runoff at the site to the oil-water separator. Due to the site's flatness and runoff collection system, additional long-term measures are neither warranted nor necessary.

#### **5.4.4 Applicable Laws, Ordinances, Regulations, and Standards (LORS)**

The following LORS are applicable to protection of the soils resource and protection of surface water quality from project-induced erosion impacts. Table 5.4-1 provides a summary of these applicable LORS. As discussed below, the proposed project will be constructed and operated in accordance with applicable LORS and permit conditions.

##### **5.4.4.1 Federal**

**The Federal Water Pollution Control Act of 1972; Clean Water Act of 1977 (including its 1987 amendments)**. These authorities establish requirements for any facility or activity that has or will discharge waste (including sediment due to accelerated erosion) that may interfere with the beneficial uses of receiving waters.

**Administering Agencies**. The administering agency for the above authority is the Regional Water Quality Control Board (RWQCB), Los Angeles Region (4) under the direction of the State Water Resources Control Board (SWRCB).

**U.S. Department of Agriculture, Soil Conservation Service (SCS), *National Engineering Handbook* (1983), Sections 2 and 3**. The U.S. Department of Agriculture prescribes standards of technical excellence for the SCS, now called the Natural Resources Conservation Service (NRCS) for the planning, design, and construction of soil conservation practices.

**Administering Agency**. The administering agency for the above authority is the NRCS.

##### **5.4.4.2 State**

**Cal. Public Resources Code § 25523(a); CCR §§ 1752, 1752.5, 2300 - 2309, and Chapter 2, Subchapter 5, Article 1, Appendix B, Part (i)**. The Act provides for protection of environmental quality. With respect to the MPP, the Act requires submittal of information to the

**TABLE 5.4-1**  
**LORS APPLICABLE TO SOILS RESOURCES & AGRICULTURE**

LORS	Applicability	Conformance
<b>Federal</b>		
Water Pollution Control Act of 1972; Clean Water Act of 1977	Establishes requirements for any facility or activity that has or will discharge waste (including sediment due to accelerated erosion) that may interfere with the beneficial uses of receiving waters.	Sections 5.4.2, 5.4.5.1
U.S. Department of Agriculture, Soil Conservation Service (SCS), <i>National Engineering Handbook</i> (1983), Sections 2 and 3	Planning, design, and construction of soil conservation practices.	Sections 5.4.2, 5.4.5.1
<b>State</b>		
Cal. Public Resources Code § 25523(a); CCR §§ 1752, 1752.5, 2300 - 2309, and Chapter 2, Subchapter 5, Article 1, Appendix B, Part (i)	Protection of environmental quality.	Sections 5.4.2, 5.4.5.2
California Environmental Quality Act, Cal. Public Resources Code § 21000 <i>et seq.</i> ; Guidelines for Implementation of the California Environmental Quality Act of 1970, 14 CCR § 15000 - 15387, Appendix G	An impact may be considered significant from an agriculture and soil standpoint if the project results in: substantial soil erosion or loss of topsoil; degradation or loss of available agricultural land, agricultural activities, or agricultural land productivity in the project area; alteration of agricultural land characteristics due to plant air emissions; and/or conversion prime or unique farmland, or farmland of statewide importance, to nonagricultural use.	Sections 5.4.2, 5.4.5.2
Water Quality Control Act of 1952; Cal. Water Code, § 13260 – 13269; 23 CCR Chapter 9	Requires adequate protection of water quality by appropriate design, sizing and construction of erosion and sediment controls.	Sections 5.4.2, 5.4.5.2
Water Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles; Order No. 96-054; NPDES No. CAS 614001	Objective of the joint permit, held by 85 incorporated cities within the County of Los Angeles, is to effectively prohibit non-storm water discharges and to reduce pollutants in urban storm water discharges to the “maximum extent practicable.” The associated municipal storm water program addresses storm water pollution from new development and redevelopment projects through the SUSMP.	Section 5.4.2, 5.4.5.3

**TABLE 5.4-1**  
**(CONTINUED)**

<b>LORS</b>	<b>Applicability</b>	<b>Conformance</b>
<b>Local</b>		
City of Burbank Municipal Code; Chapter 25; Article 10; Part (1)	Establishes a storm water and runoff pollution control program in compliance with the “standard urban Storm Water Mitigation Plan for Los Angeles.”	Sections 5.4.2, 5.4.5.3
City of Burbank Municipal Code; Chapter 7; Article 19; Part (2)	Require a local SWPPP and WUECP be submitted.	Sections 5.4.2, 5.4.5.3
City of Burbank Municipal Code; Chapter 13; Article 1	Establishes grading requirements during construction phase.	Sections 5.4.2, 5.4.5.3

CEC concerning potential environmental impacts, and the CEC’s decision on the AFC must include consideration of environmental protection.

**Administering Agency.** The administering agency for the above authority is the CEC.

**California Environmental Quality Act, Cal. Public Resources Code § 21000 et seq.; Guidelines for Implementation of the California Environmental Quality Act of 1970, 14 CCR § 15000 - 15387, Appendix G.** The CEQA guidelines specify that an impact may be considered significant from an agriculture and soil standpoint if the project results in: substantial soil erosion or loss of topsoil; degradation or loss of available agricultural land, agricultural activities, or agricultural land productivity in the project area; alteration of agricultural land characteristics due to plant air emissions; and/or conversion Prime or Unique farmland, or farmland of statewide importance, to nonagricultural use.

**Administering Agency.** The administering agency for the above authority is the CEC.

**The California Porter-Cologne Water Quality Control Act of 1952; Cal. Water Code, §13260 - 13269; 23 CCR Chapter 9.** The code requires adequate protection of water quality by appropriate design, sizing and construction of erosion and sediment controls. Discharge of waste earthen material into surface waters resulting from land disturbance may require the filing of a report of waste discharge (Water Code § 13260(a)) and provides for the issuance of waste discharge requirements with respect to the discharge of any waste that can affect the quality of the waters of the state. Concerning potential surface water pollution from project area runoff, the waste discharge requirements may incorporate requirements based on the following source of recommended methods and procedures: California Regional Water Quality Control Board, 1996, Erosion and Sediment Control Field Manual.

**Administering Agencies.** The administering agencies for the above authority are the CEC, the RWQCB, and the SWRCB.

**Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles, Order No. 96-054, NPDES No. CAS 614001.**

In accordance with the Clean Water Act, an NPDES permit is required for certain municipal separate storm water discharges to surface waters. The MPP is within the area covered by NPDES Permit No. CAS 614001 issued by the Regional Board on July 15, 1996. The permit is a joint permit, with the County of Los Angeles as the “Principal Permittee” and 85 incorporated cities within the County of Los Angeles, including the COB, as “Permittees.” The objective of the permit, and the associated storm water management program, is to effectively prohibit non-storm water discharges and to reduce pollutants in urban storm water discharges to the “maximum extent practicable” in order to attain water quality objectives and to protect the beneficial uses of receiving waters.

As part of the municipal storm water program, the Regional Board adopted the Standard Urban Storm Water Mitigation Plan (SUSMP) to address storm water pollution from new development and redevelopment projects. The SUSMP is a model guidance document for use by Permittees in the review and approval of project plans to ensure that project proponents have adequately incorporated post-construction BMPs to manage the quality of storm water and urban runoff.

**Administering Agency.** The administering agency for the above authority is the RWQCB.

**5.4.4.3 Local**

**City of Burbank Municipal Code; Chapter 25; Article 10; Part 1.** This regulation establishes a storm water and runoff pollution control program in compliance with the SUSMP.

**Administering Agency.** The administering agency for the above authority is City of Burbank.

**City of Burbank Municipal Code; Chapter 7; Article 19; Part 2.** This regulation requires a local storm water pollution prevention plan (SWPPP) and wet weather erosion control plan (WWECP) be submitted.

**Administering Agency.** The administering agency for the above authority is City of Burbank.

**City of Burbank Municipal Code; Chapter 13; Article 1.** This section of the Municipal Code establishes grading requirements during the construction phase of the project.

**Administering Agency.** The administering agency for the above authority is City of Burbank.

#### 5.4.4.4 Agencies and Agency Contacts

Agencies with jurisdiction to issue applicable permits and/or enforce LORS related to soils resources and agriculture are shown in Table 5.4-2.

#### 5.4.4.5 Applicable Permits and Schedule

Table 5.4-3 lists all applicable permits for the MPP in the area of Agriculture and Soils. The Applicant will obtain any necessary grading permit or permits prior to beginning work that triggers such permit requirements, and will comply with all permit conditions.

**TABLE 5.4-2**  
**AGENCY CONTACTS**

<b>Agency</b>	<b>Contact</b>	<b>Title</b>	<b>Telephone</b>
Burbank Community Development Department, Building Division	Calvin Chang	Supervising Plan Check Engineer	(818) 238-5220
Burbank Public Works Department	Brian Henslee	Civil Engineer Associate	(818) 238-3954
Los Angeles Regional Water Quality Control Board Storm water Unit	Wendy Phillips	Environmental Specialist	(213) 576-6618

**TABLE 5.4-3**  
**APPLICABLE PERMITS**

<b>Jurisdiction</b>	<b>Potential Permit Requirements</b>
<b>Federal</b>	<ul style="list-style-type: none"> <li>No federal permits were identified</li> </ul>
<b>State</b>	<ul style="list-style-type: none"> <li>The NPDES and SWPPP permits for the existing COB facility will likely be subject to amendment.</li> </ul>
<b>Local</b>	<ul style="list-style-type: none"> <li>Grading Permit from City of Burbank Building Department</li> </ul>

#### 5.4.5 References

United States Department of Agriculture, Soil Conservation Service. 1969 (Revised). Report and General Soil Map, Los Angeles County, California.



